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June 8, 2021

***Contains Confidential Business Information***

IDEM Air Permits Administration  
Attn: Incoming Application  
100 North Senate Avenue  
MC 61-53, Room 1003  
Indianapolis, IN 46204-2251

Re: Cook Inc. – Ellettsville North Facility  
FESOP No. 105-40744-00030  
Application for Administrative Amendment

Dear Sir or Madam,

Enclosed please find an application for an administrative amendment to FESOP No. 105-40744-00030, which was issued to Cook Inc.'s Ellettsville North facility, located at 6300 North Matthews Drive, Ellettsville, IN ("Ellettsville North").

**Description of Proposed Change**

As discussed more fully in the attached application materials, Cook Incorporated has been undertaking a project over the last several years to voluntarily reduce ethylene oxide (EtO) emissions to extremely low levels at its Ellettsville North facility (the "Voluntary Emissions Reduction Program"). For the first component of the Voluntary Emissions Reduction Program, on February 25, 2019, IDEM issued an administrative amendment to the FESOP permit to incorporate the voluntary installation of three new DR-490 dry bed reactors to control chamber exhaust vent emissions of EtO from Sterilizers S8 and S9. Second, on March 6, 2020, IDEM issued an administrative amendment to the FESOP permit to incorporate the voluntary installation of an additional 18 dry bed reactors to control room exhaust vents in existing sterilization rooms as well as provide secondary abatement for the existing Sterilization Chamber Vent.

The enclosed application is for the third component of the Voluntary Emissions Reduction Program, which is the voluntary installation of an additional 15 dry bed reactors to the Ellettsville North "Post-Aeration Room," where sterilized products are stored under negative pressure after leaving the facility aeration rooms. Any potential fugitive emissions from the Post-Aeration Room are then controlled by the new dry bed reactors. The dry bed reactors were installed in May 2021 and the Post-Aeration Room will become operational in July 2021.

Enclosed with this application, you will find an original and two (2) copies of the following documents:

1. A Permit Application Cover Sheet
2. Relevant Air Permit Application Forms
  - a. Air Permit Application – Forms Checklist
  - b. Control Equipment Summary (CE-01)
  - c. Basic Source Level Information (GSD-01)
  - d. Plant Layout Diagram (GSD-02)
  - e. Process Flow Diagram (GSD-03)
  - f. Stack/Vent Information (GSD-04)
3. Attachment A – Administrative Amendment Narrative
4. Attachments B – Proposed Permit Language
5. Attachment C – Revised Process Flow Diagram (Confidential)
6. Attachment D – Post Aeration & Control Equipment Location Plan (Confidential)

Please note that **Attachments C and D** are considered **Confidential Business Information** by Cook, and must be protected from disclosure under State law pursuant to 326 IAC 17.1-4-1 and I.C. 5-14-3. Cook's justification for confidential treatment is set forth below.

#### **Justifications for Designations as CBI Under State Law**

Cook requests that IDEM treat the enclosed CBI as confidential because the information is a trade secret protected from public disclosure pursuant to I.C. 5-14-3-4(b)(4).

1. *Narrative statement that the information is a "Trade Secret."*

A "trade secret" is information that "(1) derives independent economic value, actual or potential, from not being generally known to, and being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." I.C. § 24-2-3-2. The enclosed CBI contains confidential information related to technical processes, operational procedures, and other proprietary and confidential information of a competitive and commercial nature. This information has substantial economic value to Cook and its competitors. Moreover, the information is kept confidential by Cook. Disclosure of this information would place Cook at a competitive disadvantage.

2. *Previous confidentiality determination.*

This information has not been previously subject to a confidentiality determination. However, similar materials have been submitted in prior IDEM air permit applications, also pursuant to a confidentiality request from Cook.

3. *Time the material is to be kept confidential.*

Cook requests that IDEM maintain the confidentiality of this information permanently or as long as allowed under applicable law.

If you have any questions regarding this administrative amendment application, please contact me by email at [wgardner@taftlaw.com](mailto:wgardner@taftlaw.com) or by phone at 317-713-3562.

Sincerely,

A black rectangular redaction box covering the signature of R. William Gardner.

R. William Gardner

Enclosures

cc: Matthew Stuckey, IDEM



**AIR PERMIT APPLICATION COVER SHEET**  
State Form 50639 (R4 / 1-10)  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**IDEM – Office of Air Quality – Permits Branch**  
100 N. Senate Avenue, MC 61-53 Room 1003  
Indianapolis, IN 46204-2251  
Telephone: (317) 233-0178 or  
Toll Free: 1-800-451-6027 x30178 (within Indiana)  
Facsimile Number: (317) 232-6749  
[www.IN.gov/idem](http://www.IN.gov/idem)

**NOTES:**

- The purpose of this cover sheet is to obtain the core information needed to process the air permit application. This cover sheet is required for all air permit applications submitted to IDEM, OAQ. Place this cover sheet on top of all subsequent forms and attachments that encompass your air permit application packet.
- Submit the completed air permit application packet, including all forms and attachments, to **IDEM Air Permits Administration** using the address in the upper right hand corner of this page.
- IDEM will send a bill to collect the filing fee and any other applicable fees.
- Detailed instructions for this form are available on the Air Permit Application Forms website.

1. Tax ID Number: **35-1413874**

**FOR OFFICE USE ONLY**

PERMIT NUMBER:

DATE APPLICATION WAS RECEIVED:

**PART A: Purpose of Application**

Part A identifies the purpose of this air permit application. For the purposes of this form, the term "source" refers to the plant site as a whole and NOT to individual emissions units.

2. Source / Company Name: Cook Incorporated		3. Plant ID: 105 – 00030	
4. Billing Address: 6300 North Matthews Drive			
City: Ellettsville		State: IN	ZIP Code: 47429 –
5. Permit Level: <input type="checkbox"/> Exemption <input type="checkbox"/> Registration <input type="checkbox"/> SSOA <input type="checkbox"/> MSOP <input checked="" type="checkbox"/> FESOP <input type="checkbox"/> TVOP <input type="checkbox"/> PBR			
6. Application Summary: Check all that apply. Multiple permit numbers may be assigned as needed based on the choices selected below.			
<input type="checkbox"/> Initial Permit <input type="checkbox"/> Renewal of Operating Permit <input type="checkbox"/> Asphalt General Permit			
<input type="checkbox"/> Review Request <input type="checkbox"/> Revocation of Operating Permit <input type="checkbox"/> Alternate Emission Factor Request			
<input type="checkbox"/> Interim Approval <input type="checkbox"/> Relocation of Portable Source <input type="checkbox"/> Acid Deposition (Phase II)			
<input type="checkbox"/> Site Closure <input type="checkbox"/> Emission Reduction Credit Registry			
<input type="checkbox"/> Transition (between permit levels) From: To:			
<input checked="" type="checkbox"/> Administrative Amendment: <input type="checkbox"/> Company Name Change <input type="checkbox"/> Change of Responsible Official			
<input type="checkbox"/> Correction to Non-Technical Information <input type="checkbox"/> Notice Only Change			
<input checked="" type="checkbox"/> Other (specify): Voluntary Installation of Additional Emissions Control Equipment for Post Aeration			
<input type="checkbox"/> Modification: <input type="checkbox"/> New Emission Unit or Control Device <input type="checkbox"/> Modified Emission Unit or Control Device			
<input type="checkbox"/> New Applicable Permit Requirement <input type="checkbox"/> Change to Applicability of a Permit Requirement			
<input type="checkbox"/> Prevention of Significant Deterioration <input type="checkbox"/> Emission Offset <input type="checkbox"/> MACT Preconstruction Review			
<input type="checkbox"/> Minor Source Modification <input type="checkbox"/> Significant Source Modification			
<input type="checkbox"/> Minor Permit Modification <input type="checkbox"/> Significant Permit Modification			
<input type="checkbox"/> Other (specify):			
7. Is this an application for an initial construction and/or operating permit for a "Greenfield" Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
8. Is this an application for construction of a new emissions unit at an Existing Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

### PART B: Pre-Application Meeting

Part B specifies whether a meeting was held or is being requested to discuss the permit application.

9. Was a meeting held between the company and IDEM prior to submitting this application to discuss the details of the project?

☒ No ☐ Yes: Date:

10. Would you like to schedule a meeting with IDEM management and your permit writer to discuss the details of this project?

☒ No ☐ Yes: Proposed Date for Meeting:

### PART C: Confidential Business Information

Part C identifies permit applications that require special care to ensure that confidential business information is kept separate from the public file.

Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in the Indiana Administrative Code (IAC). To ensure that your information remains confidential, refer to the IDEM, OAQ information regarding submittal of confidential business information. For more information on confidentiality for certain types of business information, please review IDEM's Nonrule Policy Document Air-031-NPD regarding Emission Data.

11. Is any of the information contained within this application being claimed as **Confidential Business Information**?

☐ No ☒ Yes

### PART D: Certification Of Truth, Accuracy, and Completeness

Part D is the official certification that the information contained within the air permit application packet is truthful, accurate, and complete. Any air permit application packet that we receive without a signed certification will be deemed incomplete and may result in denial of the permit.

For a Part 70 Operating Permit (TVOP) or a Source Specific Operating Agreement (SSOA), a "responsible official" as defined in 326 IAC 2-7-1(34) must certify the air permit application. For all other applicants, this person is an "authorized Individual" as defined in 326 IAC 2-1.1-1(1).

☒ I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.

Gene Baker  
Name (typed)

General Manager & Vice President  
Title

Signature

Date

08 JUN 2021





# OAQ AIR PERMIT APPLICATION – FORMS CHECKLIST

State Form 51607 (R5 / 1-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**IDEM – Office of Air Quality – Permits Branch**  
100 N. Senate Avenue, MC 61-53 Room 1003  
Indianapolis, IN 46204-2251  
Telephone: (317) 233-0178 or  
Toll Free: 1-800-451-6027 x30178 (within Indiana)  
Facsimile Number: (317) 232-6749  
[www.IN.gov/idem](http://www.IN.gov/idem)

## NOTES:

- The purpose of this checklist is to help the applicant and IDEM, OAQ ensure that the air permit application packet is administratively complete. This checklist is a required form.
- Check the appropriate box indicating whether each application form is applicable for the current permit application. The source must submit only those forms pertinent to the current permit application.
- Place this checklist between the cover sheet and all subsequent forms and attachments that encompass your air permit application packet.

Part A: General Source Data				
Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	COVER	Application Cover Sheet	50639	Include for every application, modification, and renewal, including source specific operating agreements (SSOA).
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	CHECKLIST	Forms Checklist	51607	Include for every application, modification, and renewal, including SSOA.
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	GSD-01	Basic Source Level Information	50640	Include for every application, modification, and renewal, including SSOA.
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	GSD-02	Plant Layout Diagram	51605	Include for every new source application, and modification.
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	GSD-03	Process Flow Diagram	51599	Include one for every process covered by the application.
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	GSD-04	Stack / Vent Information	51606	Include for every new source application, and modification.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-05	Emissions Unit Information	51610	Include for every process covered by the application.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-06	Particulate Emissions Summary	51612	Include if the process has particulate emissions (PM).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-07	Criteria Pollutant Emissions Summary	51602	Include if the process has criteria pollutant emissions.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-08	HAP Emissions Summary	51604	Include if the process has hazardous air pollutant emissions (HAP).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-09	Summary of Additional Information	51611	Include if the additional information is included.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-10	Insignificant Activities	51596	Include if there are unpermitted insignificant activities.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-11	Alternative Operating Scenario	51601	Include if an AOS is requested.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-12	Affidavit of Nonapplicability	51600	Include if the standard notification requirements do not apply.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-13	Affidavit of Applicability	51603	Include if the standard notification requirements apply.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-14	Owners and Occupants Notified	51609	Include if the standard notification requirements apply.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	GSD-15	Government Officials Notified	51608	Include if the standard notification requirements apply.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	RENEWAL	Renewal Checklist	51755	Include with every operating permit renewal packet.

Part B: Process Information				
Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	AEF-01	Alternate Emission Factor Request	51860	Submit if you are requesting to use an emission factor other than AP-42.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-01	Miscellaneous Processes	52534	Include one form for each process for which there is not a specific PI form.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02A	Combustion Unit Summary	52535	Include one form to summarize all combustion units ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02B	<i>Combustion:</i> Boilers, Process Heaters, & Furnaces	52536	Include one form for each boiler, process heater, or furnace ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02C	<i>Combustion:</i> Turbines & Internal Combustion Engines	52537	Include one form for each turbine or internal combustion engine ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02D	<i>Combustion:</i> Incinerators & Combustors	52538	Include one form for each incinerator or combustor ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02E	<i>Combustion:</i> Kilns	52539	Include one form for each kiln ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02F	<i>Combustion:</i> Fuel Use	52540	Include one form for each combustion unit ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02G	<i>Combustion:</i> Emission Factors	52541	Include one form for each combustion unit ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-02H	<i>Combustion:</i> Federal Rule Applicability	52542	Include one form for each combustion unit ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-03	Storage and Handling of Bulk Material	52543	Include if the process involves the storage and handling of bulk materials.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-04	Asphalt Plants	52544	Include for each asphalt plant process ( <i>unless general permit</i> ).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-05	Brick / Clay Products	52545	Include for each brick and/or clay products process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-06	Electroplating Operations	52546	Include for each electroplating process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-07	Welding Operations	52547	Include for each welding process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-08	Concrete Batchers	52548	Include for each concrete batcher ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-09	Degreasing	52549	Include for each degreasing process ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-10	Dry Cleaners	52550	Include for each dry cleaning process
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-11	Foundry Operations	52551	Include for each foundry process
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-12	Grain Elevators	52552	Include for each grain elevator ( <i>unless</i> SSOA).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-13	Lime Manufacturing	52553	Include for each lime manufacturing process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-14	Liquid Organic Compound Storage	52554 (doc)	Include if the process involves the storage of liquid organic compounds.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-14ALT	Alternate version of Liquid Organic Compound Storage	52555 (xls)	Include if the process involves the storage of liquid organic compounds and there are several storage vessels.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-15	Portland Cement Manufacturing	52556	Include for each Portland cement manufacturing process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-16	Reinforced Plastics & Composites	52557	Include for each reinforced plastics and composites process.

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### Part B: Process Information

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-17	Blasting Operations	52558	Include for each blasting process ( <i>unless SSOA</i> ).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-18	Mineral Processing	52559	Include if the process involves mineral processing ( <i>unless SSOA</i> ).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-19	Surface Coating & Printing Operations	52560	Include for each surface coating or printing process ( <i>unless SSOA</i> ).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-20	Woodworking / Plastic Machining	52561	Include for each woodworking or plastic machining process ( <i>unless SSOA</i> ).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-21	Site Remediation	52570	Include for each soil remediation process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PI-22	Ethanol Plants ( <i>Under Development</i> )	None	Include for each ethanol plant.

### Part C: Control Equipment

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	CE-01	Control Equipment Summary	51904	Include if add-on control equipment will be used for the process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-02	Particulates – Baghouse / Fabric Filter	51953	Include for each baghouse or fabric filter.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-03	Particulates – Cyclone	52620	Include for each cyclone.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-04	Particulates – Electrostatic Precipitator	52621	Include for each electrostatic precipitator.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-05	Particulates – Wet Collector / Scrubber / Absorber	52622	Include for each wet collector, scrubber, or absorber.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-06	Organics – Flare / Oxidizer / Incinerator	52623	Include for each flare, oxidizer, or incinerator.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-07	Organics – Adsorbers	52624	Include for each adsorber.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-08	Organics – Condenser	52625	Include for each condenser.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-09	Reduction Technology	52626	Include for each control device using reduction technology (e.g., SCR, SNCR).
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CE-10	Miscellaneous Control Equipment	52436	Include one form for equipment for which there is not a specific CE form.

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### Part D: Compliance Determination for Part 70 Sources

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CD-01	Emissions Unit Compliance Status	51861	Include for every Title V application, including modifications.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CD-02	Compliance Plan by Applicable Requirement	51862	Include for every Title V application, including modifications.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CD-03	Compliance Plan by Emissions Unit	51863	Include for every Title V application, including modifications.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	CD-04	Compliance Schedule and Certification	51864	Include for every Title V application, including modifications and renewal.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	FED-03	Compliance Assurance Monitoring	53377	Include for every Title V application, including modifications.

### Part E: Best Available Control Technology

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	BACT-01	Analysis of Best Available Control Technology	None	Include for every BACT application.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	BACT-01a	Background Search: Existing BACT Determinations	None	Include for every BACT application.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	BACT-01b	Cost/Economic Impact Analysis	None	Include for every BACT application.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	BACT-02	Summary of Best Available Control Technology	None	Include for every BACT application.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PSD / EO-01	PSD / Emission Offset Checklist	None	Include for every PSD application and every NSR application that requires emission offsets.

### Part F: Emission Credit Registry

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	EC-01	Generation of Emission Credits	51783	Include if the modification results in emission reductions.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	EC-02	Transfer of Emission Credits	51784	Submit whenever registered emission credits are transferred.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	EC-03	Use of Emission Credits	51785	Include if the modification requires the use of emission credits for offsets.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	EC-04	Emission Credit Request	51906	Submit if you are looking for emission credits for offsets.

### Part G: Plantwide Applicability Limits

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PAL-01	Actuals Plantwide Applicability Limit	52451	Include if the modification results in emission reductions.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PAL-02	Revised Plantwide Applicability Limit	52452	Submit whenever registered emission credits are transferred.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PAL-03	Plantwide Applicability Limit Renewal	52453	Include if the modification requires the use of emission credits for offsets.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	PAL-04	Request for Termination of Plantwide Applicability Limit	52454	Submit if you are looking for emission credits for offsets.

### Part H: Air Toxics

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	FED-01	Summary of Federal Requirements – NSPS & NESHAP	53512	Include for each 40 CFR Part 60 NSPS, 40 CFR Part 61 NESHAP, and 40 CFR Part 63 NESHAP applicable to the process.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	FED-02	MACT Pre-Construction Review	51905	Include if constructing or modifying a process subject to a Part 63 NESHAP.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	No Form ID	MACT Initial Notification	None	This form is available on the U.S. EPA website. Completed notifications should be submitted to the IDEM Compliance Branch.

### Part I: Special Permits

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	INTERIM	Interim Approval	None	Submit if you are applying for interim operating approval.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	ASPHALT	Asphalt General Permit	None	Submit if you are applying for or modifying an asphalt plant general permit.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	NOXBTP	NO <sub>x</sub> Budget Permit	None	Submit if you are a power plant or if you have opted in to the NO <sub>x</sub> budget trading program.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	ACIDRAIN	Phase 2 Acid Rain Permit	None	Submit if you are applying for, modifying, or renewing a Phase 2 Acid Rain permit.

**Part J: Source Specific Operating Agreements (SSOA)**

Applicable?	Form ID	Title of Form	State Form Number	When should this form be included in my application packet?
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-01	Summary of Application and Existing Agreements	53438	Submit if you are applying for or modifying a Source Specific Operating Agreement.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-02	Industrial / Commercial Surface Coating Operations -OR- Graphic Arts Operations (326 IAC 2-9-2.5)	53439	Submit if you are applying for or modifying a SSOA for industrial or commercial surface coating operations not subject to 326 IAC 8-2; or graphic arts operations not subject to 326 IAC 8-5-5.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-03	Surface Coating or Graphic Arts Operations (326 IAC 2-9-3)	53440	Submit if you are applying for or modifying a SSOA for surface coating or graphic arts operations.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-04	Woodworking Operations (326 IAC 2-9-4)	53441	Submit if you are applying for or modifying a SSOA for woodworking operations.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-05	Abrasive Cleaning Operations (326 IAC 2-9-5)	53442	Submit if you are applying for or modifying a SSOA for abrasive cleaning operations.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-06	Grain Elevators (326 IAC 2-9-6)	53443	Submit if you are applying for or modifying a SSOA for grain elevators.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-07	Sand And Gravel Plants (326 IAC 2-9-7)	53444	Submit if you are applying for or modifying a SSOA for sand and gravel plants.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-08	Crushed Stone Processing Plants (326 IAC 2-9-8)	53445	Submit if you are applying for or modifying a SSOA for crushed stone processing plants.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-09	Ready-Mix Concrete Batch Plants (326 IAC 2-9-9)	53446	Submit if you are applying for or modifying a SSOA for ready-mix concrete batch plants.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-10	Coal Mines And Coal Preparation Plants (326 IAC 2-9-10)	53447	Submit if you are applying for or modifying a SSOA for coal mines and coal preparation plants.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-11	Automobile Refinishing Operations (326 IAC 2-9-11)	53448	Submit if you are applying for or modifying a SSOA for automobile refinishing operations.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-12	Degreasing Operations (326 IAC 2-9-12)	53449	Submit if you are applying for or modifying a SSOA for degreasing operations.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-13	External Combustion Sources (326 IAC 2-9-13)	53450	Submit if you are applying for or modifying a SSOA for external combustion sources.
<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	OA-14	Internal Combustion Sources (326 IAC 2-9-14)	53451	Submit if you are applying for or modifying a SSOA for internal combustion sources.



**OAQ CONTROL EQUIPMENT APPLICATION**  
**CE-01: Control Equipment Summary**  
State Form 51904 (R3 / 1-10)  
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**IDEM – Office of Air Quality – Permits Branch**  
100 N. Senate Avenue, MC 61-53 Room 1003  
Indianapolis, IN 46204-2251  
Telephone: (317) 233-0178 or  
Toll Free: 1-800-451-6027 x30178 (within Indiana)  
Facsimile Number: (317) 232-6749  
[www.IN.gov/idem](http://www.IN.gov/idem)

**NOTES:**

- The purpose of CE-01 is to summarize all of the equipment used to control emissions. This is a required form.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for any one to inspect and photocopy.

**Summary of Control Equipment**

*This table summarizes all of the equipment used to control air pollutant emissions. The identification numbers listed on this form should correspond to the emissions unit identified on the Plant Layout diagram and Process Flow diagram.*

1. Control Equipment ID	2. Control Equipment Description	3. Pollutant Controlled	4. Emission Unit ID	5. Stack / Vent ID	6. Applicable Rule
Primary Scrubber & Abatement Group C	Primary Scrubber removes ethylene oxide from sterilizer when sterilization cycle is complete	VOC (ethylene oxide)	S1-S9	RSV01	326 IAC 2-8-4
S1-S7 Chamber Exhaust Vent	Exhausts residual ethylene oxide when sterilizer door is opened to remove product	VOC (ethylene oxide)	S1-S7	SV01	326 IAC 2-8-4
S8-S9 Chamber Exhaust Vent (Abatement Group A)	Exhausts residual ethylene oxide when sterilizer door is opened to remove product	VOC (ethylene oxide)	S8-S9	SV02	326 IAC 2-8-4
Hot Cells 1-14	Aeration chambers where palletized product is degassed after removal from the sterilizers	VOC (ethylene oxide)	Hot Cells 1-14	HV01	326 IAC 2-8-4
Hot Cell Pre-scrubber	Removes ethylene oxide from Hot Cells prior to further removal in the Hot Cell Reactors	VOC (ethylene oxide)	Hot Cells 1-14	HV01	326 IAC 2-8-4
Hot Cell Reactors A, B, & C	Final removal of ethylene oxide gasses from the Hot Cells prior to atmosphere exhaust	VOC (ethylene oxide)	Hot Cells 1-14, Hot Cell Pre-scrubber	HV01	326 IAC 2-8-4
Abatement Group B	Aeration Bypass	VOC (ethylene oxide)	Fugitives	HV02	
Abatement Group C	Sterilization Rooms 1 & 2 Vents	VOC (ethylene oxide)	Fugitives	RSV01	
Abatement Group D	Sterilization Rooms 3 & 4 Vents	VOC (ethylene oxide)	Fugitives	RV02	
Abatement Group E	Sterilization Rooms 5/6 & 7 Vents	VOC (ethylene oxide)	Fugitives	RV03	
Abatement Group F	EO Dispensing Room	VOC (ethylene oxide)	Fugitives	RV04	

<i>Abatement Group G</i>	<i>Sterilization Room 8/9 Vents</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>RV05</i>	
<i>Abatement Group H</i>	<i>Post Aeration Vents</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>PA01</i>	
<i>Abatement Group I</i>	<i>Post Aeration Vents</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>PA02</i>	
<i>Abatement Group J</i>	<i>Post Aeration Vents</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>PA03</i>	
<i>Abatement Group K</i>	<i>Post Aeration Vents &amp; Abatement Room Vent</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>PA04</i>	
<i>Abatement Group L</i>	<i>Post Aeration Vents</i>	<i>VOC (ethylene oxide)</i>	<i>Fugitives</i>	<i>PA05</i>	

**OAQ GENERAL SOURCE DATA APPLICATION****GSD-01: Basic Source Level Information**

State Form 50640 (R5 / 1-10)

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

**IDEM – Office of Air Quality – Permits Branch**  
100 N. Senate Avenue, MC 61-53 Room 1003  
Indianapolis, IN 46204-2251  
Telephone: (317) 233-0178 or  
Toll Free: 1-800-451-6027 x30178 (within Indiana)  
Facsimile Number: (317) 232-6749  
[www.IN.gov/idem](http://www.IN.gov/idem)

**NOTES:**

- The purpose of GSD-01 is to provide essential information about the entire source of air pollutant emissions. GSD-01 is a required form.
- Detailed instructions for this form are available on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

**PART A: Source / Company Location Information**

<b>1. Source / Company Name:</b> Cook Incorporated		<b>2. Plant ID:</b> 105 – 00030	
<b>3. Location Address:</b> 6300 North Matthews Drive			
<b>City:</b> Ellettsville		<b>State:</b> IN	<b>ZIP Code:</b> 47429 –
<b>4. County Name:</b>		<b>5. Township Name:</b>	
<b>6. Geographic Coordinates:</b>			
<b>Latitude:</b> 39° 14' 38"		<b>Longitude:</b> 86° 37' 05"	
<b>7. Universal Transferal Mercadum Coordinates (if known):</b>			
<b>Zone:</b>		<b>Horizontal:</b>	<b>Vertical:</b>
<b>8. Adjacent States:</b> Is the source located within 50 miles of an adjacent state? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – Indicate Adjacent State(s): <input type="checkbox"/> Illinois (IL) <input type="checkbox"/> Michigan (MI) <input type="checkbox"/> Ohio (OH) <input type="checkbox"/> Kentucky (KY)			
<b>9. Attainment Area Designation:</b> Is the source located within a non-attainment area for any of the criteria air pollutants? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – Indicate Nonattainment Pollutant(s): <input type="checkbox"/> CO <input type="checkbox"/> Pb <input type="checkbox"/> NO <sub>x</sub> <input type="checkbox"/> O <sub>3</sub> <input type="checkbox"/> PM <input type="checkbox"/> PM <sub>10</sub> <input type="checkbox"/> PM <sub>2.5</sub> <input type="checkbox"/> SO <sub>2</sub>			
<b>10. Portable / Stationary:</b> Is this a portable or stationary source? <input type="checkbox"/> Portable <input checked="" type="checkbox"/> Stationary			

**PART B: Source Summary**

<b>11. Company Internet Address (optional):</b>	
<b>12. Company Name History:</b> Has this source operated under any other name(s)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – Provide information regarding past company names in Part I, Company Name History.	
<b>13. Portable Source Location History:</b> Will the location of the portable source be changing in the near future? <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> No <input type="checkbox"/> Yes – Complete Part J, Portable Source Location History, and Part K, Request to Change Location of Portable Source.	
<b>14. Existing Approvals:</b> Have any exemptions, registrations, or permits been issued to this source? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes – List these permits and their corresponding emissions units in Part M, Existing Approvals.	
<b>15. Unpermitted Emissions Units:</b> Does this source have any unpermitted emissions units? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – List all unpermitted emissions units in Part N, Unpermitted Emissions Units.	
<b>16. New Source Review:</b> Is this source proposing to construct or modify any emissions units? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes – List all proposed new construction in Part O, New or Modified Emissions Units.	
<b>17. Risk Management Plan:</b> Has this source submitted a Risk Management Plan? <input checked="" type="checkbox"/> Not Required <input type="checkbox"/> No <input type="checkbox"/> Yes → Date submitted: _____ EPA Facility Identifier: _____ – –	



**PART C: Source Contact Information**

**IDEM will send the original, signed permit decision to the person identified in this section. This person MUST be an employee of the permitted source.**

**18. Name of Source Contact Person:** Shawn Adams

**19. Title (optional):**

**20. Mailing Address:** Cook Incorporated, P.O. Box 489

**City:** Bloomington

**State:** IN

**ZIP Code:** 47402 – 0489

**21. Electronic Mail Address (optional):** shawn.adams@cookmedical.com

**22. Telephone Number:** ( 812 ) 339 – 2235

**23. Facsimile Number (optional):** ( ) –

**PART D: Authorized Individual/Responsible Official Information**

**IDEM will send a copy of the permit decision to the person indicated in this section, if the Authorized Individual or Responsible Official is different from the Source Contact specified in Part C.**

**24. Name of Authorized Individual or Responsible Official:** Gene Baker

**25. Title:** General Manager & Vice President

**26. Mailing Address:** Cook Incorporated, P.O. Box 489

**City:** Bloomington

**State:** IN

**ZIP Code:** 47402 – 0489

**27. Telephone Number:** ( 812 ) 339 – 2235

**28. Facsimile Number (optional):** ( ) –

**29. Request to Change the Authorized Individual or Responsible Official:** Is the source officially requesting to change the person designated as the Authorized Individual or Responsible Official in the official documents issued by IDEM, OAQ? The permit may list the title of the Authorized Individual or Responsible Official in lieu of a specific name.

☒ No ☐ Yes – **Change Responsible Official to:**

**PART E: Owner Information**

**30. Company Name of Owner:** Cook Incorporated

**31. Name of Owner Contact Person:** Gene Baker

**32. Mailing Address:** Cook Incorporated, P.O. Box 489

**City:** Bloomington

**State:** IN

**ZIP Code:** 47402 – 0489

**33. Telephone Number:** ( 812 ) 339 – 2235

**34. Facsimile Number (optional):** ( ) –

**34. Operator:** Does the "Owner" company also operate the source to which this application applies?

☐ No – Proceed to Part F below. ☒ Yes – Enter "SAME AS OWNER" on line 35 and proceed to Part G below.

**PART F: Operator Information**

**35. Company Name of Operator:** SAME AS OWNER

**36. Name of Operator Contact Person:**

**37. Mailing Address:**

**City:**

**State:**

**ZIP Code:** –

**38. Telephone Number:** ( ) –

**39. Facsimile Number (optional):** ( ) –

### PART G: Agent Information

<b>40. Company Name of Agent:</b> <i>Atlantic Design Engineers, Inc.</i>		
<b>41. Type of Agent:</b> <input checked="" type="checkbox"/> <i>Environmental Consultant</i> <input type="checkbox"/> <i>Attorney</i> <input type="checkbox"/> <i>Other (specify):</i>		
<b>42. Name of Agent Contact Person:</b> <i>Simon B. Thomas</i>		
<b>43. Mailing Address:</b> <i>P.O. Box 1051</i>		
<b>City:</b> <i>Sandwich</i>	<b>State:</b> <i>MA</i>	<b>ZIP Code:</b> <i>02563 –</i>
<b>44. Electronic Mail Address (optional):</b> <i>sthomas@atlanticcompanies.com</i>		
<b>45. Telephone Number:</b> <i>( 508 ) 888 – 9282</i>	<b>46. Facsimile Number (optional):</b> <i>( 508 ) 888 – 5859</i>	
<b>47. Request for Follow-up:</b> <i>Does the "Agent" wish to receive a copy of the preliminary findings during the public notice period (if applicable) and a copy of the final determination?</i>		<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes

### PART H: Local Library Information

<b>48. Date application packet was filed with the local library:</b> <i>N/A</i>		
<b>49. Name of Library:</b> <i>Monroe County Library</i>		
<b>50. Name of Librarian (optional):</b> <i>Branch Manager - Chris Hosler</i>		
<b>51. Mailing Address:</b> <i>600 West Temperance</i>		
<b>City:</b> <i>Ellettsville</i>	<b>State:</b> <i>IN</i>	<b>ZIP Code:</b> <i>47429 –</i>
<b>52. Internet Address (optional):</b> <i>www.monroe.lib.in.us</i>		
<b>53. Electronic Mail Address (optional):</b> <i>chosler@monroe.lib.in.us</i>		
<b>54. Telephone Number:</b> <i>( 812 ) 876 – 1272</i>	<b>55. Facsimile Number (optional):</b> <i>( ) –</i>	

### PART I: Company Name History (if applicable)

Complete this section only if the source has previously operated under a legal name that is different from the name listed above in Section A.

56. Legal Name of Company	57. Dates of Use
	to
	to
	to
	to
	to
	to
	to
	to
	to
	to
	to

**58. Company Name Change Request:** *Is the source officially requesting to change the legal name that will be printed on all official documents issued by IDEM, OAQ?*

☒ No ☐ Yes – **Change Company Name to:**

*Complete this section only if the source is portable and the location has changed since the previous permit was issued. The current location of the source should be listed in Section A.*

[illegible]

*Complete this section to request a change of location for a portable source.*

**Address:**

City:

**State:**

ZIP Code: —

**County Name:**

**Address:**

City:

**State:**

ZIP Code: —

**County Name:**

### PART L: Source Process Description

Complete this section to summarize the main processes at the source.

64. Process Description	65. Products	66. SIC Code	67. NAICS Code
Manufacture of Medical Devices	Medical Devices		339112, 339113

### PART M: Existing Approvals (if applicable)

Complete this section to summarize the approvals issued to the source since issuance of the main operating permit.

68. Permit ID	69. Emissions Unit IDs	70. Expiration Date
40744	FESOP Renewal Issued 8/30/2019	8/30/2029
42357	Administrative Amendment Issued 3/6/2020	8/30/2029

### PART N: Unpermitted Emissions Units (if applicable)

Complete this section only if the source has emission units that are not listed in any permit issued by IDEM, OAQ.

71. Emissions Unit ID	72. Type of Emissions Unit	73. Actual Dates		
		Began Construction	Completed Construction	Began Operation

### PART O: New or Modified Emissions Units (if applicable)

Complete this section only if the source is proposing to add new emission units or modify existing emission units.

74. Emissions Unit ID	75. NEW	76. MOD	77. Type of Emissions Unit	78. Estimated Dates		
				Begin Construction	Complete Construction	Begin Operation



# OAQ GENERAL SOURCE DATA APPLICATION

## GSD-02: Plant Layout Diagram

State Form 51605 (R3 / 1-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**IDEM – Office of Air Quality – Permits Branch**  
100 N. Senate Avenue, MC 61-53 Room 1003  
Indianapolis, IN 46204-2251  
Telephone: (317) 233-0178 or  
Toll Free: 1-800-451-6027 x30178 (within Indiana)  
Facsimile Number: (317) 232-6749  
[www.IN.gov/idem](http://www.IN.gov/idem)

### NOTES:

- The purpose of GSD-02 is to provide a diagram of the entire plant site. This form and a Plant Layout diagram are required for all air permit applications. If you do not provide the necessary information, applicable to your source, the application process may be stopped.
- IDEM, OAQ has provided detailed instructions for this form and an example of a basic plant layout diagram on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

### Part A: Basic Plant Layout

Part A provides IDEM, OAQ with the appropriate information about all buildings and access-limiting features in and around the plant site. **Please use this table as a checklist.** You must provide scaled drawings, with the actual scale shown. All dimensions and units must be clearly indicated with a brief explanation of what is being shown. Include the following (*All measurements should be given in feet.*):

1.	<input checked="" type="checkbox"/> Building Location and Dimensions
2.	<input checked="" type="checkbox"/> Property Lines and Access-Limiting Features
3.	<input type="checkbox"/> Surrounding Building Location and Dimensions
4.	<input checked="" type="checkbox"/> Distances to Property Lines and Access-Limiting Features
5.	<input checked="" type="checkbox"/> UTM Location Coordinates
6.	<input checked="" type="checkbox"/> Compass (pointing North)
7.	<input checked="" type="checkbox"/> Scale

### Part B: Stack Information

Part B provides IDEM, OAQ with the appropriate information about all stacks, roof monitors, control devices, and process vents at the plant site. **Please use this table as a checklist.** You must show the location of all applicable emission points and include all relevant stack and emissions unit identification numbers for each. In addition, you will need to identify each of these emission points under "Stack Identification" on form GSD-04, Stack/Vent Information. Include the following (*All measurements should be in feet.*):

8.	<input checked="" type="checkbox"/> Exhaust Stacks
9.	<input type="checkbox"/> Process Vents
10.	<input type="checkbox"/> Roof Monitors <input checked="" type="checkbox"/> No Roof Monitors
11.	<input checked="" type="checkbox"/> Control Devices <input type="checkbox"/> No Control Devices
12.	<input type="checkbox"/> Interior Vents <input checked="" type="checkbox"/> No Interior Vents <input type="checkbox"/> Doors and Windows ( <i>for processes vented inside a building</i> )

### Part C: Roadway Information

Part C provides IDEM, OAQ with the appropriate information about the roadways in and around the plant site. **Please use this table as a checklist.** Include the following (*All measurements should be in feet.*):

13.	<input checked="" type="checkbox"/> Adjacent Roadways <input checked="" type="checkbox"/> Interior Roadways
14.	<input type="checkbox"/> Roadway Surface Description (gravel, dirt, paved, etc.)
15.	<input type="checkbox"/> Number of Lanes

## Part D: Source Building Information

This table provides detailed information about each building at the plant site that is part of the source. If additional space is needed, you may make a copy of this table. *(All measurements should be given in feet.)*

[illegible]



### Part E: Surrounding Building / Residence Information

This table provides detailed information about each building or residence surrounding the plant site. If additional space is needed, you may make a copy of this table. *(All measurements should be given in feet.)*

[illegible]

### Part F: Plant Layout Diagram

This space provides a place for a hand drawn plant layout diagram. It is **optional** to use this space to create your plant layout, but you must include the diagram with your application. If you choose to submit the plant layout in a different format, state "plant layout attached" in the space provided, and submit the information with your completed application. IDEM, OAQ has provided an example of a basic plant layout diagram on the Air Permit Applications Forms website.

SEE ATTACHMENT D



# OAQ GENERAL SOURCE DATA APPLICATION

## GSD-03: Process Flow Diagram

State Form 51599 (R3 / 1-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch

100 N. Senate Avenue, MC 61-53 Room 1003

Indianapolis, IN 46204-2251

Telephone: (317) 233-0178 or

Toll Free: 1-800-451-6027 x30178 (within Indiana)

Facsimile Number: (317) 232-6749

[www.IN.gov/idem](http://www.IN.gov/idem)

### NOTES:

- The purpose of GSD-03 is to provide a checklist for identifying the information to be included on each Process Flow diagram.
- Complete this form and submit a process flow diagram for each process included in your air permit application.
- IDEM, OAQ has provided detailed instructions for this form and an example of a basic process flow diagram on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

### Part A: Process Flow Diagram

Part A provides basic information to understanding the nature of the process. Please use this table as a checklist to indicate that you have included the following items on your process flow diagram (*All throughputs should be given in pounds per hour.*):

1. ☒ **Process Description:** Cook, Incorporated (Cook) is a manufacturer of medical devices. Prior to distribution, Cook sterilizes finished products at its Ellettsville, Indiana facility using ethylene oxide in a low temperature process. Cook currently operates nine (9) ethylene oxide (EO) sterilization chambers using pure EO as sterilant gas. Gases from all sterilization chambers are evacuated by a dedicated, recirculating oil, liquid ring, vacuum pump to a sterilizer wet acid scrubber for treatment before discharge to the atmosphere. Other existing control equipment includes an additional wet acid scrubber and twenty-five (25) dry bed units.

2. ☒ Process Equipment

3. ☒ Raw Material Input

4. ☒ Process Throughput

5. ☐ Additions ☐ Deletions ☒ Modifications

Use the space below to briefly explain the impacts of the additional equipment, the reason for removing any equipment, and/or the reason for the proposed modification. (*If additional space is needed, please attach a separate sheet with the information and indicate in the space below that additional information is attached.*)

Cook proposes an Administrative Amendment of their existing FESOP as part of their Voluntary Emissions Reduction Program. The Voluntary Emissions Reduction program incorporates the use of fifteen (15) additional dry bed units to control potential fugitive sources of EO from Cook's Post Aeration rooms.

### Part B: Process Operation Schedule

Part B indicates the actual (or estimated actual) hours of operation for the process.

6. ☒ Process Operation Schedule 24 Hours per Day 5 Days per Week 52 Weeks Per Year

7. **Scheduled Downtime:** Use the space below to include as much information as is known about scheduled periods of downtime for this process. (*If additional space is needed, please attach a separate sheet with the information and indicate in the space below that additional information is attached.*)

### Part C: Emissions Point Information

Part C provides information about each potential outlet of air pollutant emissions to the atmosphere. Please use this table as a checklist to indicate that you have included the following items on your process flow diagram (*All throughputs should be given in pounds per hour.*):

8. ☒ Stack / Vent Information

9. ☒ Pollutants Emitted

10. ☒ Air Pollution Control

#### Part D: Process Flow Diagram

This space provides a place for a hand drawn process flow diagram. It is **optional** to use this space to create your process flow diagram, but you must include the diagram with your application. If you choose to submit the process flow diagram in a different format, state "process flow diagram attached" in the space provided, and submit the information with your completed application. IDEM, OAQ has provided an example of a basic process flow diagram on the Air Permit Applications Forms website.

SEE ATTACHMENT C



# OAQ GENERAL SOURCE DATA APPLICATION

## GSD-04: Stack / Vent Information

State Form 51606 (R3 / 1-10)

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

IDEM – Office of Air Quality – Permits Branch

100 N. Senate Avenue, MC 61-53 Room 1003

Indianapolis, IN 46204-2251

Telephone: (317) 233-0178 or

Toll Free: 1-800-451-6027 x30178 (within Indiana)

Facsimile Number: (317) 232-6749

[www.IN.gov/idem](http://www.IN.gov/idem)

### NOTES:

- The purpose of this form is to provide basic information about each stack or vent that has the potential to emit air pollutants. If you do not provide enough information to adequately describe each process vent and/or stack, the application process may be stopped. This form is required for all air permit applications.
- Detailed instructions for this form are available online on the Air Permit Application Forms website.
- All information submitted to IDEM will be made available to the public unless it is submitted under a claim of confidentiality. Claims of confidentiality must be made at the time the information is submitted to IDEM, and must follow the requirements set out in 326 IAC 17.1-4-1. Failure to follow these requirements exactly will result in your information becoming a public record, available for public inspection.

### Stack / Vent Information

This table provides detailed information about each stack or vent through which air pollutants could be released into the atmosphere. If an air stream is vented inside a building, the vent does not need to be listed on this form. If additional space is needed, you may make a copy of this form.

1. Stack / Vent ID	2. Type (V H W O)	3. Shape (C R O)	4. Outlet Dimensions (feet)	5. Height (feet)	6. Maximum Outlet Flow Rate (acfm)	7. Outlet Gas Temperature (Degrees F)	8. Related Stacks / Vents (B P O)
RSV01	V	R	2.00	36.00	6000.00	77.0	
HV01	V	C	2.00	36.00	4000.00	77.0	
HV02	V	R	2.00	36.00	6000.00	77.0	
SV01	V	R	1.00	36.00	1800.00	77.0	
SV02	V	R	2.00	36.00	6000.00	77.0	
RV02	V	R	2.00	36.00	6000.00	77.0	
RV03	V	R	2.00	36.00	6000.00	77.0	
RV04	V	R	2.00	36.00	6000.00	77.0	
RV05	V	R	2.00	36.00	6000.00	77.0	
PA01 (New)	V	R	2.00	36.00	4000.00	77.0	
PA02 (New)	V	R	2.00	36.00	6000.00	77.0	
PA03 (New)	V	R	2.00	36.00	6000.00	77.0	
PA04 (New)	V	R	2.00	36.00	6000.00	77.0	
PA05 (New)	V	R	2.00	36.00	6000.00	77.0	



ATTACHMENT A

Administrative Amendment Narrative

## **I. ELLETTSVILLE NORTH STERILIZATION**

### **A. Introduction**

Cook Incorporated (Cook) is undertaking an ambitious plan to voluntarily reduce emissions from its Ellettsville North Sterilization Facility (the ‘Facility’) to extremely low levels (the ‘Voluntary Emissions Reduction Program’). The intent of the Voluntary Emissions Reduction Program is to minimize, to the extent feasible, contributions from fugitive sources of Ethylene Oxide (EO) at the Facility.

Cook recently received an Administrative Amendment from Indiana’s Department of Environmental Management (IDEM) on March 6, 2020 to operate an additional eighteen (18) dry bed units at Ellettsville North. These dry bed units were installed as part of the Voluntary Emissions Reduction Program to control room exhaust vents in existing sterilization rooms as well as provide secondary abatement for the existing Sterilization Chamber Vent control, or primary wet scrubber. Currently, Ellettsville North utilizes a total of twenty-five (25) dry bed units where twenty-one (21) units are operated on a voluntary basis.

The next stage of Cook’s Voluntary Emissions Reduction Program incorporates the installation of an additional fifteen (15) dry bed units to control potential emissions from sterilized products after completion of a 24-hour aeration cycle. This ‘Post Aeration’ process is intended to capture any fugitive emissions from finished product after completion of a 24-hour aeration cycle.

The additional dry bed units were installed at the Facility in May of 2021 and are currently operational. As part of the Voluntary Emissions Reduction Program, Cook seeks approval from IDEM to update descriptive information in its air permit to reflect these new voluntary emission controls.

### **B. Regulatory Background**

IDEM renewed Cook’s Federally Enforceable State Operating Permit (No. 105-40774-00030) on August 30, 2019 (FESOP Renewal). After receiving the FESOP Renewal, Cook was then issued the above-mentioned Administrative Amendment on March 6, 2020.

The following regulatory timeline provides an overview of permit renewals, permit revisions, administrative amendments and other key regulatory compliance dates since Cook’s initial FESOP was issued.

- **February 16, 1998** - Office of Air Quality issued Cook's FESOP (F105-8436-00030).
- **October 14, 2004** - Office of Air Quality issued Cook's First FESOP Renewal (F105-15590-00030) as a renewal of F105-8436-00030 with an expiration date of October 14, 2009.
- **August 24, 2009** - Office of Air Quality issued Cook's Second FESOP Renewal (F105-27381-00030) as a renewal of F105-15590-00030 with an expiration date of August 24, 2019.
- **June 25, 2010** - Office of Air Quality issued F105-29042-00030 as the First Significant Revision to F105-27381-00030 for the installation of two (2) existing emergency generators.
- **September 7, 2012** - Office of Air Quality issued F105-32055-0030 as the Second Significant Revision to F105-27381-00030 for the installation of Sterilization Chambers S8 & S9.
- **February 25, 2019** - Office of Air Quality issued F105-41050-00030 as an Administrative Amendment to F105-27381-00030 for the addition of the Sterilization Chambers S8 & S9 Back-Vent Controls.
- **August 30, 2019** - Office of Air Quality issued Cook's Third FESOP Renewal (F105-40744-00030) as a renewal of F105-27381-00030 with an expiration date of August 30, 2029.
- **March 6, 2020** – Office of Air Quality issued F105-42357-00030 as an Administrative Amendment to F105-40744-00030 for the voluntary operation of additional control equipment for fugitive emissions.

### **C. Sterilization Overview**

The Ellettsville North sterilization process utilizes a combination of wet acid scrubbing and chemisorption (dry bed reaction) to control EO emissions from nine (9) existing sterilizers and associated fourteen (14) aeration rooms (hot cells). Current emissions control systems consist of two (2) wet acid scrubbers and twenty-five (25) dry bed reactors manufactured by Advanced Air Technologies of Corunna, MI. The various control equipment is designed to effectively reduce emissions from the sources listed below:

### **Current Emissions Sources**

***Sterilization Chamber Vent (SCV)*** exhausts are controlled by a single wet acid scrubber (Primary Scrubber). This scrubber has a minimum control (removal) efficiency of 99% and has a rated flow capacity of 360 cfm. A maximum of four sterilizers can be simultaneously discharged at Cook via SCV exhausts per the current FESOP Renewal. Treated air from the Primary Scrubber is routed to a secondary abatement system which incorporates three dry bed units in parallel.

***Chamber Exhaust Vents (CEV, or Back vents)*** from Sterilizers S-1 through S-7 are controlled by a single dedicated dry bed reactor with a minimum control (removal) efficiency of 99%. The back-vents from Sterilizers S-8 and S-9 are exhausted to a secondary set of three (3) dry bed reactors ducted in parallel with a minimum control (removal) efficiency of 99%.

***Fugitives Emissions*** are defined as emissions that are not easily accounted for or isolated during a given stage of a designed sterilization cycle. Fugitive emissions at Ellettsville North are primarily associated with the following:

- i. **Back-Vent Fugitives:** Following the SCV Cycle, the sterilization chamber door is “cracked” open to initiate the back-vent cycle and triggers the operation of roof-mounted blowers. These blowers are intended to flush out residual EO from within the chamber before product transfer. Air from the sterilization room is drawn through the chamber, routed through the dry bed units and then exhausted to atmosphere. When the chamber door is initially cracked, any delay in the negative pressure while initiating blowers can contribute to temporary fugitives within the sterilization room.
- ii. **Product Transfer Fugitives:** Following back-venting, product is manually transferred from a sterilization chamber to aeration rooms. The sterilizers are emptied one pallet at a time over the course of approximately 10 minutes. During unloading of a sterilizer, the sterilizer door is left open and the back-vent blower is operated to help maintain a negative pressure in the sterilization chamber/transfer area. Sterilization room exhaust vents located within each sterilization room maintain a negative pressure by ventilating air. Exhaust vents from all sterilization rooms are treated via fifteen (15) dry bed reactors.
- iii. **Aeration Fugitives:** During Cook’s Product Transfer process the aeration room doors are opened to allow loading of product. When the aeration room doors are opened, an Aeration Bypass Exhaust initiates to withdraw air at a negative pressure away

from the operators. The Aeration Bypass Exhaust is typically in use for 5-10 minutes during product transfer. The Aeration Bypass Exhaust is currently treated via three dedicated dry bed reactors in parallel. Once the aeration room doors are closed, the Aeration Room Vents (ARV) are initiated (see below).

- iv. Post-Aeration: After completion of a 24-hour aeration cycle, any remaining EO that may off-gas from sterilized products is also considered a fugitive emission. This Administrative Amendment aims to specifically address this fugitive.
- v. EO Dispensing: Although there are measures in place to avoid fugitive EO associated with the EO dispensing process, including Nitrogen blankets and blow out valves, in the very unlikely event that any EO were introduced into the dispensing room this would also be considered a fugitive emission. The Facility also utilizes room exhausts vents within the EO Dispensing Room and air is treated via three dry bed reactors.

**Aeration Room Vents (ARV)** are initiated after the aeration room doors are closed. ARV emissions are initially directed to a dedicated wet acid pre-scrubber (designated Aeration Scrubber) to remove the bulk of the ethylene oxide prior to exhausting through a series of three (3) dry bed reactors, which are ducted in parallel. The minimum control efficiency of this process train, likewise, is 99%.

**Table 1**  
**Existing Control Equipment & Regulatory Requirements**

Source	Control System	Regulated Control Efficiency
<b>Chamber (Vacuum) Vent or SCV</b>	Wet Scrubber & (3) DR-490 Dry Bed Units	At least 99% reduction* *Wet Scrubber Only
<b>Chamber Exhaust Vent (Back-Vent)</b>	(1) DR-490 Dry Bed for S1-S7 (3) Dr-490 Dry Beds for S8-S9 <sup>1</sup> <sup>1</sup> Operated Voluntarily	1ppmv or by 99%, whichever is less stringent <sup>2</sup> <sup>2</sup> Only Applicable to S1-S7
<b>Fugitive Emissions</b>	Eighteen (18) Dry Bed Units	0% (Voluntary)
<b>Aeration Room Vent (ARV)</b>	Wet Scrubber/Dry Bed Reactors	1ppmv or by 99%, whichever is less stringent

#### D. Existing Fugitive Emission Control Equipment

Ellettsville North utilizes exhaust vents located within seven (7) sterilization rooms and an EO storage/dispensing room for continuous ventilation of fugitives and recirculation of ambient air at the facility. As detailed above, the facility is designed to maintain continuous negative pressure to mitigate potential fugitives and employee exposure.

The following vent locations are utilized to maintain negative pressure, treat air via eighteen (18) dry bed units, and exhaust to atmosphere via roof-mounted blowers:

**Table 2**  
**Ellettsville North Room Exhaust Vent Locations**

Room Exhaust Vent Location	Existing Reduction Equipment	Resulting Exhaust Rate (CFM) & Stack ID
Aeration Bypass Exhaust	Three Dry Bed Units in Parallel (Abatement Group B)	6,000± (HV02)
Sterilization Room 1 (Chamber 1)	Three Dry Bed Units in Parallel (Abatement Group C)	6,000± (RSV01)
Sterilization Room 2 (Chamber 2)		
Sterilization Room 3 (Chamber 3)	Three Dry Bed Units in Parallel (Abatement Group D)	6,000± (RV02)
Sterilization Room 4 (Chamber 4)		
Sterilization Room 5 (Chamber 5 & 6)	Three Dry Bed Units in Parallel (Abatement Group E)	6,000± (RV03)
Sterilization Room 6 (Chamber 7)		
EO Dispensing Room	Three Dry Bed Units in Parallel (Abatement Group F)	6,000± (RV04)
Sterilization Room 7 (Chamber 8 & 9)	Three Dry Bed Units in Parallel (Abatement Group G)	6,000± (RV05)



## II. FESOP FRACTIONAL EMISSIONS AND CURRENT EMISSIONS BY SOURCE

### A. Emissions by Source

Fractional EO emissions sources associated with Cook operations, as detailed within the Technical Support Document for the most recent FESOP Renewal, are identified in the permit as follows:

**Table 3**  
**Fractional Emissions by Source - Ellettsville North**

Source	Stack Vent Identification	Fraction of EO Usage
<b>Sterilization Chamber Vents</b>	RSV01	0.9500 (95.00%)
<b>Back Vents</b>	SV01 & SV02	0.0035 (0.35%)
<b>Fugitives</b>	HV02 & RV02-RV05	0.0021 (0.21%)
<b>Aeration</b>	HV01	0.0444 (4.44%)

### B. Current Maximum Controlled Potential to Emit

The current maximum Controlled Potential to Emit (PTE) for EO is provided within Cook's March 6, 2020 Administrative Amendment. Using fractional emissions by source from Table 3, Controlled PTE is derived using annual EO usage at the facility and rated minimum control efficiencies for abatement systems (Table 1), where applicable:

**Table 4**  
**FESOP Maximum Controlled Emissions by Source (PTE)**

Source	Emissions Controls	Sterilizers S1-S7		Sterilizers S8/S9		Total Facility
		lbs/yr	tns/yr	lbs/yr	tns/yr	tns/yr
Sterilization Chamber Vents	Primary-Wet Scrubber (99%) Secondary-Dry Beds (99%)	7.2	0.004	4.6	0.002	0.006
Back Vents	At least 99%	2.6	0.001	1.7	0.001	0.002
Fugitives	At least 99%	1.56	0.001	1.01	0.001	0.002
Aeration	At least 99%	33.4	0.017	21.4	0.011	0.028
Total Facility		44.76	0.023	28.61	0.015	0.038

Exhaust stack identifications are shown within Cook's Proposed Process Flow Diagram (PFD), which is provided as **Attachment C**. Current annual maximum Controlled PTE is also provided within *Appendix A: Emissions Calculations* to the Technical Support Document in Cook's FESOP Renewal.

### **III. ADMINISTRATIVE AMENDMENT OVERVIEW**

As part of the Voluntary Emissions Reduction Program Cook initially installed voluntary back-vent controls for Sterilizers S8-S9 as well as eighteen (18) dry bed units for control of fugitive emissions within existing sterilization rooms. The intent of the Voluntary Emissions Reduction Program is to continually minimize, to the extent feasible, contributions from any source emissions from the Ellettsville North facility. Accordingly, Cook recently completed construction of emissions reduction equipment for controlling ventilation associated with the Post-Aeration area.

#### **A. Control System Operating Principles**

Advanced Air Technologies, Inc. of Corunna, MI manufactured the emissions control equipment currently in operation at Ellettsville North. The newly installed fifteen (15) dry bed units for Post Aeration are equivalent Safe Cell II systems, Model No. DR-490A, designated as Abatement Groups H through L (see **Attachment D**). For reference purposes, the existing dry bed units associated with the back-vent controls for Sterilizers S8 & S9 are referred to as *Abatement Group A* and the fugitive control equipment for sterilization rooms are designated as *Abatement Groups B through G*.

The operating principle of a dry bed reactor is solid-phase reaction, a chemical reaction where the ethylene oxide gas contacts and reacts with a solid. Ethylene oxide gas molecules contact the crystallized solid and react with active sites distributed throughout the solid matrix. The solid is crystallized in order to increase the surface area to volume ratio of the solid and enhance diffusion of gases through the porous matrix.

The control mechanism of the Dry Bed Reactor is a true chemical reaction rather than a physical phenomenon such as adsorption. The gas stream containing ethylene oxide is introduced into the vessel and reacts with the crystallized bed as it proceeds.

## B. Post Aeration Control Equipment

The most recent addition to Cook's Voluntary Emissions Reduction Program routes previously uncontrolled ventilation systems from the Post Aeration area through DR-490 dry bed units. The intention of the new control equipment is to provide supplemental EO emissions control for potential off-gassing associated with sterilized products after completion of a full 24-hour aeration cycle. Products removed from aeration rooms are placed in 'Post Aeration' awaiting transport to final processing/post-sterilization services including boxing and shipment. Cook recently expanded the Post Aeration area to include an additional corridor as shown in design plans provided as **Attachment D**.

Exhaust vents have been installed throughout the existing Post Aeration area as well as the expanded corridor. The newly installed exhaust vents are routed to fifteen (15) DR-490 dry bed units and exhausted to atmosphere via five independent stacks. The dry bed reactors are configured in five (5) groups of three (3) dry bed reactors in parallel. Each group of parallel dry beds are exhausted to atmosphere via Series 20 General Industrial radial blowers resulting in a total of five (5) dedicated blowers and associated exhaust stacks. Each blower, rated at 6,000 cfm, draws ventilation through a given Abatement Group and exhausts treated air via dedicated stacks as shown within the attached PFD. As noted in the table below, ventilation from the Abatement Room Exhaust is also routed to control equipment.

**Table 5**  
**Abatement Groups H through L**

Exhaust Vent Location / Description	New Reduction Equipment	Resulting Exhaust Rate (CFM) & Stack ID
Post Aeration Duct (PA01)	Three Dry Bed Units in Parallel ( <i>Abatement Group H</i> )	6,000± CFM Via Stack PA01
Post Aeration Duct (PA02)	Three Dry Bed Units in Parallel ( <i>Abatement Group I</i> )	6,000± CFM Via Stack PA02
Post Aeration Duct (PA03)	Three Dry Bed Units in Parallel ( <i>Abatement Group J</i> )	6,000± CFM Via Stack PA03
Post Aeration Duct & Abatement Room Exhaust (PA04)	Three Dry Bed Units in Parallel ( <i>Abatement Group K</i> )	6,000± CFM Via Stack PA04
Post Aeration Duct (PA05)	Three Dry Bed Units in Parallel ( <i>Abatement Group L</i> )	6,000± CFM Via Stack PA05

Refer to **Attachment D** for stack locations and **Attachment C** for Cook's Revised PFD for facility emissions.

#### **IV. PROPOSED CONTROLLED POTENTIAL TO EMIT**

Although implementation of emissions control for Post Aeration should result in lower observed Facility PTE, the current sources as listed in Cook's FESOP do not identify Post Aeration as an independent source. Accordingly, Post Aeration is considered a Fugitive emission. The current FESOP already incorporates a 99% control efficiency for voluntarily operated fugitive emissions control and therefore the Facility Controlled PTE will not be affected within the FESOP Permit or TSD.

#### **V. ADMINISTRATIVE AMENDMENT SUMMARY**

- A.** Cook has elected to voluntarily achieve further reduction of fugitive sources at their Ellettsville North Sterilization Facility as part of its Voluntary Emissions Reduction Program.
- B.** The Voluntary Emissions Reduction Program proposes the installation/operation of fifteen (15) DR-490 dry bed units to reduce potential fugitive emissions from the Post Aeration area.
- C.** No modifications are proposed to existing emissions control equipment at this time.
- D.** The current FESOP already incorporates a 99% control efficiency for voluntarily operated fugitive emissions control and therefore the Facility Controlled PTE will not be affected within the FESOP Permit or TSD.
- E.** Cook is requesting that IDEM revise Cook's FESOP Renewal under an Administrative Amendment to reflect these voluntary facility changes within the permit and Technical Support Document. Refer to **Attachment B** for a red-line of the FESOP that incorporates Cook's proposed language changes.
- F.** Five (5) roof mounted Series 20 General Industrial radial blowers will ventilate facility air through the dry bed units and exhaust through dedicated stacks designated as PA01 through PA05. Existing and proposed stacks are shown within the Process Flow Diagram provided as **Attachment C** and summarized below.

**Table 7 - Control Equipment & Exhaust Stack Summary**

	Stack ID	Control Equipment ID	Description/Details
EXISTING STACKS	SV01	Dry Bed Unit for Back Vents	Chamber S1-S7 Back Vents
	SV02	Abatement Group A Dry Beds	Chamber S8-S9 Back Vents
	HV01	Aeration Room Dry Bed Units	Hot Cells 1 through 14
	HV02	Abatement Group B Dry Beds	Aeration Bypass Exhaust
	RSV01	Primary Wet Scrubber For SCV & Abatement Group C Dry Beds	Wet Scrubber Exhaust & Sterilization Room 1 & 2 Ventilation
	RV02	Abatement Group D Dry Beds	Sterilization Room 3 & 4 Ventilation
	RV03	Abatement Group E Dry Beds	Sterilization Room 5 & 6 Ventilation (Chambers 5/6 & 7)
	RV04	Abatement Group F Dry Beds	EO Dispensing Room Ventilation
	RV05	Abatement Group G Dry Beds	Sterilization Room 7 Ventilation (Chamber 8/9)
NEW STACKS	PA01	Abatement Group H Dry Beds	Post Aeration Ventilation
	PA02	Abatement Group I Dry Beds	Post Aeration Ventilation
	PA03	Abatement Group J Dry Beds	Post Aeration Ventilation
	PA04	Abatement Group K Dry Beds	Post Aeration & Abatement Room Ventilation
	PA05	Abatement Group L Dry Beds	Post Aeration Ventilation

**ATTACHMENT B**

**Relevant Redlines from Existing Permit**

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary medical device manufacturing and sterilization operation.

Source Address:	6300 North Matthews Drive, Ellettsville, Indiana 47429
General Source Phone Number:	(812) 339-2235
SIC Code:	3841 (Surgical and Medical Instruments and Apparatus)
County Location:	Monroe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) Seven (7) ethylene oxide sterilization chambers, identified as S1 through S7. Sterilization chambers S1 through S6 were constructed in 1998 and sterilization chamber S7 was constructed in 2004, each using Oxyfume 2000, Oxyfume 2002 or pure ethylene oxide for sterilization, all exhausting to one (1) primary wet acid scrubber and modified in 2019 to add three (3) voluntary secondary non-regenerable dry bed reactors in parallel which exhausts through one (1) stack, identified as RSV01, and with chamber exhaust vents (back vents) exhausting to one (1) single non-regenerable dry bed reactor which exhausts through one (1) stack, identified as SV01.
- (b) Two (2) ethylene oxide sterilization chambers, identified as S8 and S9, constructed in 2012, each using Oxyfume 2000, Oxyfume 2002 or pure ethylene oxide for sterilization, each exhausting through a vacuum pump to one (1) primary wet acid scrubber and modified in 2019 to add three (3) voluntary secondary non-regenerable dry bed reactors in parallel which exhausts through one (1) stack, identified as RSV01; and with S8 and S9 chamber exhaust vents (back vents) exhausting to three (3) non-regenerable dry bed reactors, which exhaust through one (1) stack, identified as SV02.
- (c) Fourteen (14) aeration rooms, identified as HC1 through HC14, all constructed in 1998, where:
  - (1) During aeration room loading, an aeration bypass exhausts through three (3) voluntary non-regenerable dry bed reactors (in parallel), which exhaust through one (1) stack identified as HV02.
  - (2) During aeration cycle, zero (0) to a maximum of six (6) can exhaust through one (1) wet acid pre-scrubber and three (3) dry bed reactors (in parallel), with the remaining units exhausting solely through the three (3) dry bed reactors (in parallel), all of which exhaust through one (1) stack, identified as HV01.

[Nine (9) ethylene oxide sterilization chambers (S1-S9) and fourteen (14) aeration rooms, (HC1-HC14 are existing affected facilities under 40 CFR 63, Subpart O.]

- (d) Eight (8) Facility Room Vents, identified as Sterilization Room Vents (SRV) SRV1 through SRV7 and the ethylene oxide dispensing room vents, exhausting through fifteen (15) voluntary non-regenerable dry bed units exhausting through five (5) independent stacks.

- (1) SRV1 and SRV2 exhausting through three (3) non-regenerable dry bed reactors (in parallel) and exhausted through one (1) stack identified as RSV01.
- (2) SRV3 and SRV4 exhausting through three (3) non-regenerable dry bed reactors (in parallel) and exhausted through one (1) stack identified as RV02.
- (3) SRV5 and SRV6 exhausting through three (3) non-regenerable dry bed reactors (in parallel) and exhausted through one (1) stack identified as RV03.
- (4) EO Dispensing Room Vent exhausting through three (3) non-regenerable dry bed reactors (in parallel) and exhausted through one (1) stack identified as RV04.
- (5) SRV7 exhausting through three (3) non-regenerable dry bed reactors (in parallel) and exhausted through one (1) stack identified as RV05.

- (e) One (1) Post Aeration Room & One (1) Abatement Room exhausting through fifteen (15) non-regenerable dry bed reactors exhausting through five (5) independent stacks identified as PA01 through PA05.

- (fe) Miscellaneous cleaning with isopropyl alcohol (IPA), methanol and ethanol.

- (gf) One (1) diesel-fired emergency generator, identified as Unit #1, installed on July 31, 2003 and constructed in 2010, with a maximum capacity of 1850 hp, with emissions uncontrolled, and exhausting to the atmosphere.

[The diesel-fired emergency generator, identified as Unit #1 is an existing affected facility under 40 CFR 63, Subpart ZZZZ.]

- (hg) One (1) diesel-fired emergency generator, identified as Unit #2, installed on November 19, 2003 and constructed in 2010, with a maximum capacity of 2922 hp, with emissions uncontrolled, and exhausting to the atmosphere.

[The diesel-fired emergency generator, identified as Unit #2 is an existing affected facility under 40 CFR 63, Subpart ZZZZ.]

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

- (a) Slipcoating operations consisting of the mixing and coating of medical devices with solids mixed with isopropyl alcohol and water, isopropyl alcohol and methylene chloride, or ethanol to create a hydrophilic surface which is cured by ultraviolet light.
- (b) The following storage containers:
  - (1) nine (9) 100% ethylene oxide storage cylinders with a maximum storage capacity of 400 pounds of ethylene oxide each (3,600 pounds total). These are portable cylinders that will be connected to the sterilization process.

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- (2) nine (9) 100% ethylene oxide storage cylinders each with a maximum storage capacity of 400 pounds of ethylene oxide on standby for connection to the sterilization process as cylinders are emptied.
- (3) up to four (4) additional 100% ethylene oxide storage cylinders each with a maximum storage capacity of 400 pounds of ethylene oxide to be stored on site.
- (c) Three (3) liquor storage tanks, identified as Tanks A, B, and C, each with a working storage capacity of 5,870 gallons, all venting to the wet acid pre-scrubber, exhausting through one (1) stack, identified as HV01.
- (d) Gluing, heat forming, tapering, marking and printing operations associated with manufacturing activities and product assembly, exhausting through building exhausts and one (1) stack, identified as S10.
- (e) Natural gas fired combustion sources including the following:

Emission units	Construction Date	ID	Heat Input Capacity (MMBtu/hr)	
NG boiler	2003	C241-F	2.1349	uncontrolled, exhausting to stack
NG boiler	2003	C242-F	2.1349	uncontrolled, exhausting to stack
NG boiler	2006	C230-F	1.68	uncontrolled, exhausting to stack
NG boiler	2006	C231-F	1.68	uncontrolled, exhausting to stack
NG boiler	2006	C233-F	0.85	uncontrolled, exhausting to stack
NG boiler	2018	EUN1-HHW-B001	4.00	uncontrolled, exhausting to stack
NG boiler	2018	EUN1-HHW-B002	4.00	uncontrolled, exhausting to stack
NG boiler	2018	EUN1-HHW-B003	4.00	uncontrolled, exhausting to stack
Total			20.48	

- (f) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (g) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.
- (h) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (i) Closed loop heating and cooling systems;
- (j) Exposure chambers ("towers", "columns"), for curing of ultra-violet inks and ultra-violet coatings where heat is the intended discharge.
- (k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (l) Heat exchanger cleaning and repair.
- (m) Package and Prep operations, exhausting through one (1) stack, identified as S07.
- (n) Heat forming, taping, masking, and printing operations exhausting through various building exhausts.
- (o) ABRM Catheter Impregnation Process consisting of the following:

- (1) A total of two (2) hoods with six (6) emersion tanks per hood and two (2) wells per tank for a total of 24 wells, with a total capacity of 2930 cubic inches and an average weekly usage of 27.5 liters of solvent and antibiotic solution.
  - (2) A total of three (3) drying hoods for silicon or polyurethane tubes.
  - (3) A total of one (1) formulation and mixing booth, where the immersion solution is mixed, with potential single HAP (Methanol) emissions of 0.75 tons per year and potential VOC emission of 4.04 tons per year.
  - (4) A total of one (1) formulation and mixing booth for butyl acetate addition and mixing with a potential VOC emission of 0.67 tons per year.
- (p) Paclitaxel Treatment Process consisting of the following:
- (1) One (1) raw materials mix hood;
  - (2) Two (2) Paclitaxel treatment booths; and
  - (3) Four (4) Paclitaxel aeration booths.
- with potential VOC emissions of less than 15 pounds per day for each booth.

A.4 FESOP Applicability [326 IAC 2-8-2]

*This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).*




ATTACHMENT C

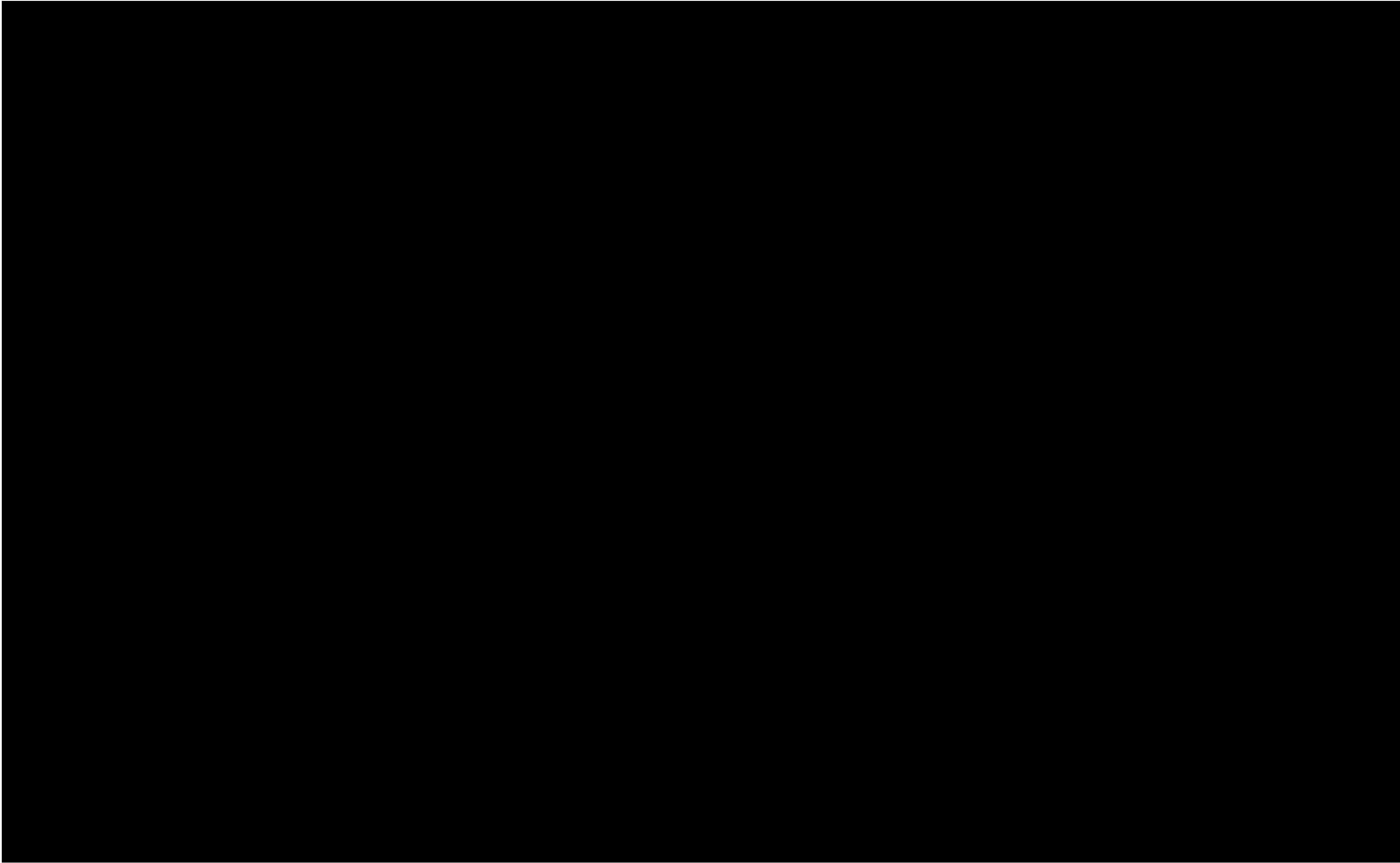


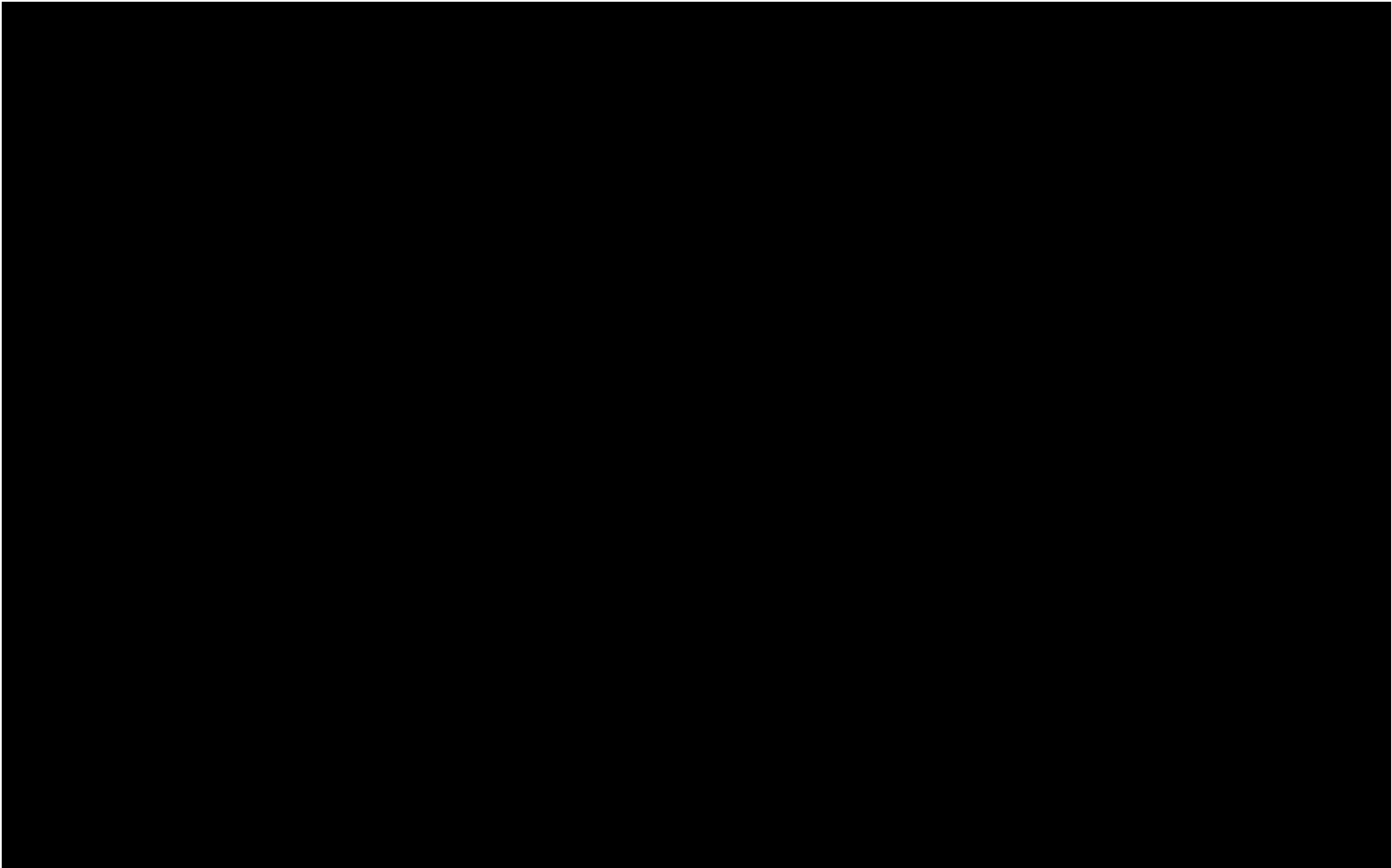
P.O. Box 1051  
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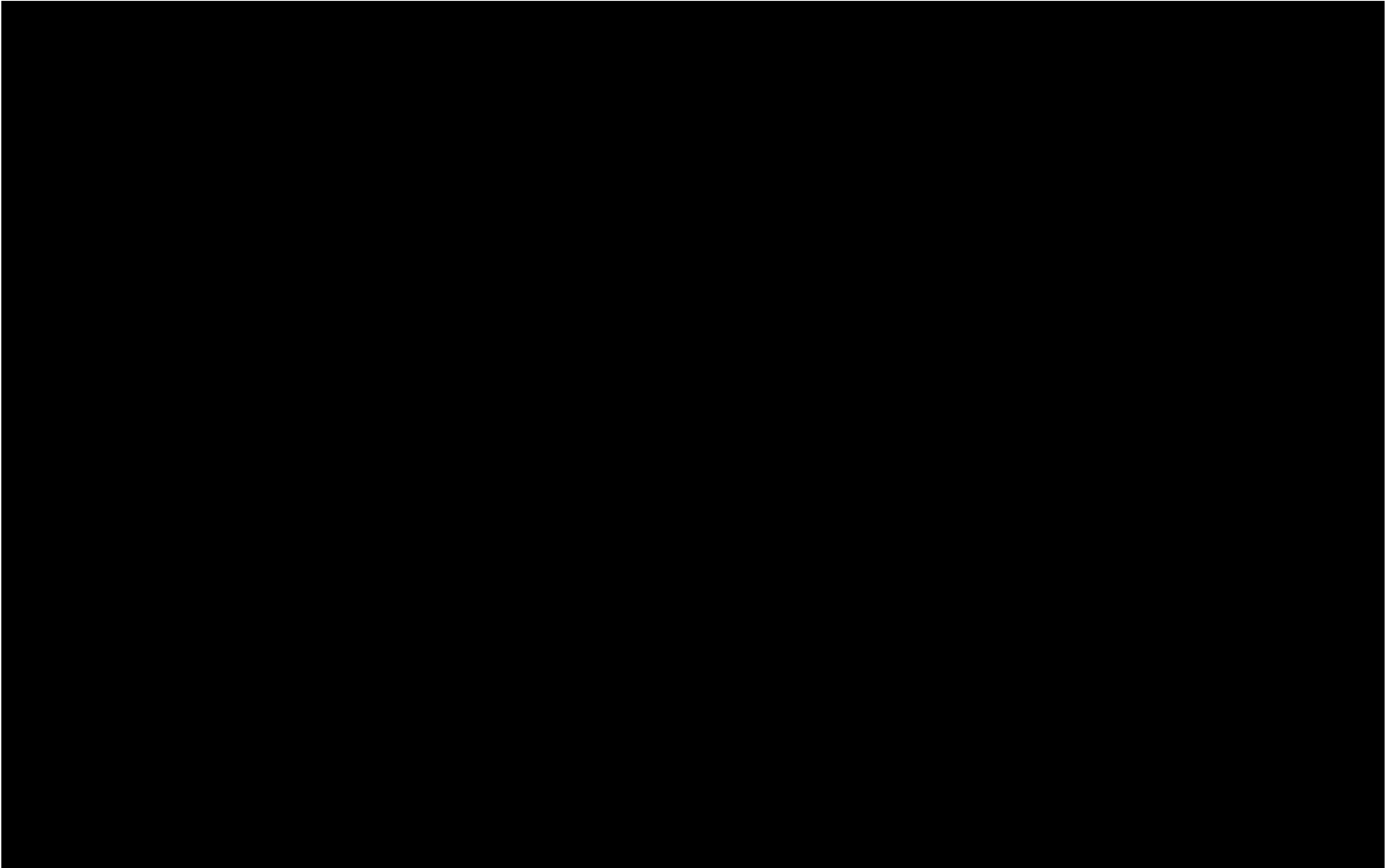
email: [ade@atlanticcompanies.com](mailto:ade@atlanticcompanies.com)

 [www.atlanticcompanies.com](http://www.atlanticcompanies.com)

Supporting Attachments










ATTACHMENT D



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Supporting Attachments

